

Amendments to the Claims

Please cancel claims 1-10, 12-17, 19, 21-26, 28-33, 35, and 36, and amend the claims as follows:

1.-10. (Canceled)

11. (Currently Amended) A method for processing a substrate in a processing chamber, comprising:

forming a dielectric material layer on a surface of the substrate;

depositing one or more amorphous carbon layers consisting essentially of hydrogen and carbon on the dielectric material layer by a process comprising:

introducing a processing gas comprising one or more hydrocarbon compounds without containing silicon and an argon carrier gas;

generating a plasma of the processing gas by applying power from a dual-frequency RF source;

etching the one or more amorphous carbon layers to form a patterned amorphous carbon layer;

etching feature definitions in the dielectric material layer corresponding to the patterned one or more amorphous carbon layers; The method of claim 9, further comprising:

depositing an anti-reflective coating on the one or more amorphous carbon layers; and

patterning resist material on the anti-reflective coating; and

etching the anti-reflective coating prior to or concurrent with etching the one or more amorphous carbon layers.

12.-17. (Canceled)

18. (Currently Amended) The method of claim 11, wherein the anti-reflective coating is ~~a material selected from the group of silicon nitride, silicon carbide, carbon-doped silicon oxide, amorphous carbon, and combinations thereof.~~

19. (Canceled)

20. (Original) The method of claim 11, further comprising removing the resist material prior to etching feature definitions in the dielectric layer.

21.-26. (Canceled)

27. (Currently Amended) A method for processing a substrate, comprising:

depositing one or more dielectric layers on a substrate surface, wherein the one or more dielectric layers comprise silicon, oxygen, and carbon and has a dielectric constant of about 3 or less;

forming one or more amorphous carbon layers consisting essentially of hydrogen and carbon on the one or more dielectric layers by a process comprising:

introducing a processing gas comprising one or more hydrocarbon compounds without containing silicon and an argon carrier gas;

generating a plasma of the processing gas by applying power from a dual-frequency RF source;

defining a pattern in at least one region of the one or more amorphous carbon layers;

forming feature definitions in the one or more dielectric layers by the pattern formed in the at least one region of the one or more amorphous carbon layers;

depositing one or more conductive materials in the feature definitions; ~~The method of claim 22, further comprising:~~

~~depositing an anti-reflective coating on the one or more amorphous carbon layers; and~~

~~patterning resist material on the anti-reflective coating; and~~

etching the anti-reflective coating prior to or concurrent with etching the one or more amorphous carbon layers.

28.-33. (Canceled)

34. (Currently Amended) The method of claim 27, wherein the anti-reflective coating is ~~a material selected from the group of silicon nitride, silicon carbide, carbon-doped silicon oxide, amorphous carbon, and combinations thereof.~~

35.-36. (Canceled)

37. (Original) The method of claim 27, wherein at least one of the one or more amorphous carbon layers comprise an anti-reflective coating.